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DEVELOPMENT ARTICLE

Learners' perceptions of instructional design practice in a situated learning activity

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Abstract This case study investigated learners' perceptions of value from participating in a learning activity designed to model professional instructional design practice. Learners developed instructional design products for a corporate client in the context of a classroom-based course. The findings indicate that learners perceived different kinds of value which varied according to the degree of integration of learners' goals with client's goals, ranging from (a) *co-constituted value* (in which learners perceived the value of their participation as being inextricably bound to creation of value to the client) to (b) *satisficing value* (in which learners engaged with the activity so as to generate value for themselves while providing sufficient or *good enough* value to the client) to (c) *salvage value* (in which learners did not participate in the activity in the manner intended, but attempted to salvage some personal value from their participation). A framework relates these learners' perceptions of value to three main features of such learning activities: *what you do*, *how you do it*, and *who you are accountable to.* The relative worth of these different kinds of value is discussed, and proposals for influencing learner perceptions of value are presented.

Keywords Instructional design · Perceived value · Professional practice · Situated learning activity

Introduction

Over the last 25 years, a substantive body of knowledge has emerged expressing the need for professional education programs to not only develop in learners the

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technical knowledge and skills required for professional practice, but also the practical knowledge necessary for success in dealing with the often uncertain, ill-structured, and complex nature of professional practice. The theoretical foundations for such approaches are drawn from a variety of models for structuring learning from experience (Dewey, 1963), including the reflective practicum (Schön, 1990), situated learning and situated cognition (Brown, Collins, & Duguid, 1989), legitimate peripheral participation within communities of practice (Lave & Wenger, 1991), cognitive apprenticeship (Collins, Brown, & Holum, 1991), and problem-based learning (Barrows, 1994; Regnier, Welsh, & Quarton, 1994; Savery & Duffy, 2001). Recent accounts in the literature report a variety of approaches to develop such practical knowledge and skills in a range of settings including business management education (Stein, Isaacs, & Andrews, 2004), agricultural education (Knobloch, 2003), teacher education (Barab, Squire, & Dueber, 2000), the education of instructional designers (Bannan-Ritland, 2001; Kapp, Phillips, & Wanner, 2002; Ross, 1998), and medical education (Koens, Mann, Custers, & Cate, 2005; Nathoo, Goldhoff, & Quattrochi, 2005). Similar approaches have also been reported in K-12 environments, particularly in the areas of science education (Radinsky, Bouillion, Lento, & Gomez, 2001; Rahm, Miller, Hartley, & Moore, 2003), social studies (Doane, 1993), and integrated science and social studies (Williams, Bidlack, & Winnett, 1993). A core characteristic of these approaches is the active participation of learners in a real world or near-real world context for the purpose of learning. In the context of professional education, such situated learning experiences generally require learners to solve problems at or near to the level of complexity normally found in professional practice. Commonly, the rationale for such situated learning activities is to stimulate engagement and resultant active learning in learners.

For much of the 1980's and early 1990's reports of such learning activities were primarily descriptive and focused on how curriculum designers and instructors designed such learning activities. In addition, such reports were often based on the implicit assumption that situated learning activities would be sufficient to stimulate engagement and consequent learning by learners, and that learners would value participation in such activities (Nicaise, Gibney, & Crane, 2000). However, more recent analysis of the design and implementation of situated learning experiences has focused on learners' perceptions of the activities (e.g., Anderson, Reder, Simon, 1996; Hiebert et al., 1996; Nathoo et al., 2005; Rahm et al., 2003), and has challenged the assumption that they have value-generating capacity for all learners. In particular, empirical scholarship has begun to identify learner and learning environment characteristics, and learner–environment interactions, that affect learners' perceived value of participation (Barab et al., 2000; Radinsky et al., 2001), and theoretical scholarship has addressed the assumption that it is possible to design situated learning experiences which will be perceived by learners as being of value prior to learner participation in the activity (Petraglia, 1998a, 1998b).

Despite increased interest in the limitations of situated learning activities for some learners, few empirical studies of learner perceptions of value have been reported (Nicaise et al., 2000). The purpose of this case study is to fill this gap by examining the perceptions of value of a group of instructional design graduate learners who participated in a learning activity in which they designed instructional design projects for a corporate client in the context of a classroom-based course. The guiding research question was: Were there systematic differences among learners in how they perceived the value of the learning activity?

Learners' perceptions of value

A large body of scholarship exists related to learners' perceptions of value and consequent engagement in learning situations. Concepts such as learner value, interest, motivation, and engagement have been studied from a wide range of perspectives (e.g., expectancy-value theories, motivation theories, theories of learning and cognition, goal theories) (Brophy, 1999; Jarvela & Volet, 2004; Miller, DeBacker, & Greene, 1999; Vansteenkiste et al., 2004; Walker, Pressick-Kilborn, Arnold, & Sainsbury, 2004). Common to these perspectives is the assumption that the higher the value the learner places on a learning activity, the greater the engagement and persistence in learning. Sinha (1999) argues that "re-thinking" (p. 32) the learner is necessary in order to recognize that not all learners will experience participation in a learning activity in the same way. For example, research has indicated that only learners whose epistemological beliefs were consistent with constructivist approaches to learning or who had a high tolerance for ambiguity were successful in a situated learning activity (Jacobson & Spiro, 1994). Other learner characteristics that have been shown to affect perceptions of value include length of involvement in such activities (Dolmans & Schmidt, 1994), learners' choices of learning strategies (Evensen, Salisbury-Glennon, & Glenn, 2001), and learners' approaches towards goal setting (Vansteenkiste et al., 2004).

Characteristics of situated learning activities have also been shown to support or impede learners' perceptions of value, including the breadth of activities available to learners, the level of appeal of the activities available, and the nature of learners' interactions with tasks and other participants within the environment. For example, Nicaise et al. (2000) and Radinsky et al. (2001) propose that situated learning environments need to be broad enough for learning activities to be sufficiently flexible so that all learners can pursue activities that are personally meaningful to them. Brophy (1999) proposes that content and learning activities should match learners' prior experiences and knowledge so as to stimulate initial interest, or at least be close enough to be within what he calls "motivational zones of proximal development" (p. 78). This allows "scaffolded appreciation" (p. 82), in which an instructor can support learners in appreciating the value of participation in a learning activity.

Recent studies have begun to distinguish empirically the value perceived by different learners in situated learning activities. Radinsky et al. (2001) report on a partnership between four middle schools and a telecommunications company, characterized as a "powerful learning experience and highly motivating activity" (p. 418) for learners. However, the authors also report that learners did not perceive the greatest personal value to arise from the primary focus of the learning activities (i.e., survey design and information gathering), although these were reported to provide considerable motivation for learners, but from secondary products of the partnership (e.g., a chance to participate in media events and a political convention). Barab et al. (2000) report on a curriculum project in which groups of teacher education students with technology expertise were paired with K-12 teacher–mentors to develop technology materials for use in their classrooms. The authors discuss how the interactions of the students with their communities of practice differentially affected their perceptions of the value of their experiences. For example, in the case of one group of students for whom the teacher–mentor did not participate as

intended by the project designers, the students decided to work directly with the K-12 children in the classrooms and developed strong value from this self-designed activity. Similarly, Rahm et al. (2003) report on a science education project involving learners, teachers, and scientists, and argue that designers of such collaborative projects need to recognize that the meaning of project activities for participants will not be static and cannot be precisely predetermined. Instead meaning will emerge in diverse ways over time for all participants as they interact with each other and the learning environment.

Setting

The setting for this case study was the second of two instructional design courses in a master's degree program in instructional design at a large U.S. Midwestern university. During the first course learners were expected to become familiar with at least one instructional design model and apply this model to the design of instruction for an adult audience. Learners could choose the content of instruction and the intended audience, but they were not required to deliver the instruction to the intended audience. In the second course, the major assignment was to design, develop, and develop instruction for a client in a local organization. Learners chose from a set of instructional needs that the client had drawn up with the instructor prior to the course. Several of the needs were broadly specified to allow the design teams significant flexibility in their choice of instructional content in order to increase the likelihood of learner buy-in. Learners were advised that they were expected to act in the role of professional instructional designers working as members of an instructional design consulting team. During the first class session, learners had the opportunity to meet other class participants and formed three teams of four, three, and two members respectively. The teams then met and reached consensus on which client instructional need each team would work.

Design, development, and delivery deadlines had previously been agreed between the instructor and the client, and it was expected that teams would schedule tasks to meet these deadlines. Each design team was assigned a representative from within the client organization and was required to select a primary contact person to communicate with the client representative. Design teams were responsible for design, development, and delivery of the instruction to the intended audience provided by the client. However, if any component of the proposed instruction (content, instructional methods, or materials) was considered inappropriate by the client, the client could ask for revisions. The instructor provided ongoing guidance to design teams, including reviewing materials and providing feedback prior to submission to the client. The instructor also met regularly with the client to review progress.

Methods

The research methodology in this case study was an inductive analysis of in-depth interviews with learners and clients. The first author, who was not otherwise involved with the course, undertook the data collection. The second author, who was the designer and instructor of the course, participated equally with the first author in the

data analysis and the development of the discussion. The following terms are used throughout the study: *learner* refers to the students participating in the course, *trainee* refers to the employees of the client organization who were the recipients of instruction, and *client* refers to the client representatives who requested the units of instruction and managed the learners as they would manage outside consultants performing a similar function.

In order to understand the full range of learner perceptions, the authors applied Patton's (1990) maximum variation sampling strategy by attempting to recruit every learner in the course. Two weeks following the final exam, the instructor described the study and invited all learners to participate. Seven of the nine learners were available, which included at least two from each design team. Four of the available learners were male and three female. Additionally, the clients were interviewed immediately following the course in order to triangulate the learners' responses.

Data collection consisted of open-ended interviews of between 1.25 h and 1.5 h. The interviews followed Rubin and Rubin's (1995) river and channel model of "a major river that merges different currents into a single stream and then breaks into separate channels, possibly combining again later into a single stream... The questions explore one current within the main river and follow it no matter where it goes" (p. 159). The interview guide contained two central questions: "Let's discuss your feelings about producing a real product that would be used by [a client] for your semester project" and "Let's discuss your current views about the instructional design process." The guide also included an evolving set of follow-up questions that were drawn on as needed to keep the conversation within the bounds of the study while allowing the respondent to determine the "channels" or salient directions of the interview. Examples of frequently asked follow-up questions include "How was [issue introduced by respondent] influenced because you knew it was for [the client]?"; "How do you feel about the control you had over [issue introduced by respondent]?"; and "What influenced you in deciding how to [issue introduced by respondent]?" Interviews were recorded and transcribed verbatim.

The responses were read by the first author and clustered into a comprehensive set of categories, following Strauss and Corbin's (1998) constant comparative method. This clustering process consisted of iteratively naming and renaming categories of learner perceptions as items of data were read and the categorization of earlier items reconsidered, until a coherent set of categories reflected all the perceptions of interest. The ATLAS.ti software program was used to manage the data and facilitate this process. Both authors reviewed the clustered data in order to identify themes and sub-themes. Two main themes were identified. The first theme comprised three features of the learning activity reported by learners as having the greatest impact on perceived value: *what you do*, *how you do it*, and *who you are accountable to*. In our study, *what you do* referred to designing a single piece of instruction chosen by the client for actual use, as opposed to designing one or more pieces of instruction of one's own or the instructor's choosing which would not be delivered to any intended recipients. *How you do it* referred to learners' perceptions of the instructional design process when undertaken for a client as different from the process learned and practiced in the introductory instructional design course. The final feature, *who you are accountable to*, referred to managing the potentially competing demands of instructor and client.

The second theme comprised three kinds of value that the learners perceived from participating in the learning activity: *co-constituted value*, *satisficing value*, and

salvage value. Co-constituted value was perceived when a learner was engaged with the activity such that the value to the learner and the value to the client emerged together. Satisficing value was perceived when a learner was engaged with the activity in such a manner as to generate value for himself while providing sufficient or *good enough* value to the client. Satisficing is a term originated by Simon (1955) to refer to a *good enough* rather an optimum outcome of a choice. In a minority of situations some learners reported perceptions referred to here as salvage value. In these situations, learners decided that participation was not in their best interest, and engaged with the client only in a manner that permitted some personal value to be salvaged from the activity regardless of value to the client.

Most perceptions of value were categorized as co-constituted, and the least number were categorized as salvage. However, most learners perceived more than one kind of value arising from different features of the activity, and so learners themselves were not categorized as co-constituted, satisficing, or salvage value learners. The remainder of the paper discusses the three main features of the learning activity in relation to the proposed three kinds of learner value, and a summary of these relationships is presented in Table 1.

Perceptions of value of the main features of the situated learning activity

What you do: A whole project

The learning activity consisted of completing a single instructional design project from inception to delivery of instruction to its intended users. Almost all learners reported that completing a single project most distinguished the learning activity from prior classroom learning of instructional design, which used only selected steps of an instructional design model. For example, projects in the first course did not require development of all instructional materials or delivery of the instruction to its intended learners.

Co-constituted value

Producing a single piece of instruction tailored to a client's constraints and limited needs carried an opportunity cost of not experiencing a variety of projects or instructional strategies that might have been possible with a different course design. Yet the majority of learners did not dwell on this opportunity cost, but rather described the meaningfulness of producing instruction perceived as valuable by the client: for the majority of learners the value of engaging in the activity was co-constituted with its value to the client. The following quotations illustrate how the meaningfulness of the project and the resulting learning were grounded in the perception of value of the instruction to the client, and that fulfilling this client need offered greater value to the learner than the prospect of exercising a wider range of skills in a classroom context.

> It just made sense to me going through the process from the beginning till actual delivery ...instead of a bunch of little things that weren't connected...we had people in mind when we were doing it, an audience in mind. It gave reality and meaning to what we were doing, made it seem purposeful.

Table 1 Kinds of perceived learner value in relation to the main features of the learning activity

Perceived learner value		Main features of learning activity		
Kinds of value	Integration of learner and client goals	*What you do:* task to be completed	*How you do it:* processes for completing task	*Who you are accountable to:* instructor and client
Co-constituted	High range	*Characteristics:* Learner and client exercise mutual control over task	*Characteristics:* Learner and client negotiate mutually agreeable processes	*Characteristics:* Learner and client create partnership in which both are task beneficiaries
Satisficing	Middle range	*Characteristics:* Learner exercises control over task to meet client product needs while satisfying learners' learning needs	*Characteristics:* Learner and client compromise on processes	*Characteristics:* Learner and client negotiate learner role that includes elements of both a student role and a client employee or consultant role
Salvage	Low range	*Characteristics:* Learner acquiesces to participation in required task	*Characteristics:* Learner exercises control over chosen elements of processes that meet own learning needs	*Characteristics:* Learner completes task to satisfy own learning needs

> Some people who stayed after our presentation were asking us like we were real experts on the subject, and that seemed to give us some credibility or they wouldn't have been asking us... I suspect that there are still a lot of lessons to be learned, but I think that I can carry the lessons that I learned with this project through to other work that I do.

For most learners the most highly valued feature of doing a whole project was its culmination in the delivery of instruction. It was in the delivery of the instruction that learners became aware that the value to them of completing a whole project was grounded in the value received by the client, as expressed by the following learners:

> It surprised me that I had learned that much just from doing that one final step. If we had stopped without delivering it, I wouldn't have learned half as much. Truly I think presenting it is crucial, I wouldn't have learned hardly anything if we hadn't presented it. It's like most poetry or drama is written to be read or performed and it's only effective to a point, you know, when it's just on paper.

> The class project [in the introductory instructional design class] just had to look good, it didn't have to work [with an audience]. Whereas in this class we had a purpose, there was a reason for creating this project, somebody was actually going to have to use it. It seemed real instead of going out and doing a whole project that would just sit in a folder on a shelf after it gets graded.

Satisficing value

Learners perceiving satisficing value experienced a separation between the value of the learning activity to the client and to themselves. Their engagement was an ongoing compromise to balance the client's requirement for narrowly defined instruction which would satisfy the clients' limited needs and constraints, with the learners' desire to experience the practice of exemplary instructional design.

The delivery of instruction provided the clearest example of the learners' perceived separation of their value from the client value. Some learners attached a personal importance to the final presentation that exceeded that of the instructor, and in some cases conflicted with the needs of the client. For these learners the delivery phase apparently served as a metonym for completing a whole project—a salient part which stands for the whole in a way that provides understanding of the whole (Lakoff & Johnson, 1980). For these learners, the delivery phase was seen as the repository of value for the whole project. One group produced an excessively comprehensive presentation from the perspective of the trainees, as described by this learner:

> Every single [trainee] said we tried to do too much in the time we had [for the presentation]... I think we deluded ourselves, we just thought all the content was so important.

For these learners the presentations appeared to satisfy their own criteria of value, while providing more than sufficient value for the clients. While all three clients highly valued the products they received, all indicated that the delivery of the final presentations exceeded their needs or added little or no value. The following are typical client statements about the value of the final delivery of instruction:

> *Client:* I think their expectations are greater than ours, they have the perception that the presentation is very important... There doesn't have to be a stand and deliver presentation. With my group the manual would have sufficed.
>
> *Client:* One possibility is to leave the presentation at the end completely optional. Even though the presentation was good and the evaluations came back very good, I don't know what value that added to the instructional design process outside the fact that it gave the presenters a little more practice to actually present to adult learners.

When asked if anything was lost from doing a single whole project as opposed to elements of a variety of projects, the following learner indicated no perception of loss, but rather benefit from the potential transferability of the underlying instructional design skills:

> A lot of the skills we learned putting together this one product will definitely relate to others. The only thing that was really specific was the content. Just in terms of having to analyze the audience and tailor the methods that we used, those are things we'll have to do in the future. Decisions along the way that we had to make, I see that as really applicable. So I don't feel it was necessarily really narrow.

Salvage value

One learner did not perceive value in producing a single piece of instruction from inception to delivery and felt that this privileged one dimension of instructional design, the complete sequence of steps, to the detriment of other dimensions that would have offered more value. Instead, the learner indicated a preference for a comprehensive range of practice tasks directed to personal learning needs:

> I would have liked to have seen different modalities and designs, different ways of approaching it ... what a video presentation versus just a self-help book versus a training program versus stand-up program, maybe something in a computer-directed, to see the strengths and weaknesses of one topic presented in a variety of different ways...I would scrap the idea of a project, go with one neutral thing and look at it from a lot of different ways [rather] than going to [the client].

This learner perceived a clear separation between the personal value of the learning activity and its value to the client and engaged the activity in a way that salvaged whatever personal value could be obtained by choosing to develop instruction expected to be of most value to in future work. The learner felt the client did not in fact receive real value from this instruction, while the client and other team members perceived that significant value was received.

How you do it: Through a different process of instructional design

Without exception all the learners reported that instructional design was a significantly different process when it was performed for a client compared with the instructional design process learned in a classroom or textbook context.

Co-constituted value

Many learners had expected that their earlier classroom learning would be enriched by going deeper into the process of instructional design: for example, by developing more sophisticated computer based instruction than they had designed in classroom projects; or by conducting each step of the formal instructional design process more rigorously than in the first instructional design course. In fact, the enriched process was broader rather than deeper, and activities such as simply dealing with the client were perceived to be as much a part of instructional design as technical issues of design, as elaborated by this learner:

> [Although] our project ended up relatively simple and straightforward, the learning was more in dealing with that situation, going up and actually talking with a client and things like that... personal and emotional issues.

These learners concluded that the instructional design process was in some sense negotiated with the client, but understanding of the negotiation process varied among learners. Some learners who understood negotiation in the sense of co-constitution perceived the instructional design process as valuable because it was jointly negotiated with the client to fulfill the client's needs. For example, these learners recognized as the project proceeded that control over design decisions was not as unilateral as in the class project in the introductory instructional design course, but a dynamic process of progressively integrating the client's perspectives at each stage into a shared evolving design. One learner described the enriched experience of negotiating a co-constituted process with the client:

> There were aspects that were different because we were doing it for a client...when you do a project for class, you say, this is what it's going to be. The professor says, yeah, that's fine. So you do it. That's all there is to it... Whereas this was an on-going negotiation. But not just a negotiation. An interaction with the client, give and take and feed-back and revision. You send it up to them, and you come back and say well, that's sort of what we were talking about, but consider this. Then we'd get together and work on getting a real understanding of what the client wanted, helping the client decide what they wanted. They had some ideas of what they wanted, but as we worked through it that changed some for them, and it surely changed for us, our perception of what they wanted changed as we went through the identification of the things that we were going to do.

Other learners emphasized that while this enriched instructional design process had been intellectually understood before the course, the value of the learning required actual experience of the negotiation process, as summarized by this learner:

> Your assumptions about how things are come up against the reality of how they are in a particular situation. You think of this wonderful thing and they say, no, we don't want to do that. We want to do this. And that's very realistic. We see it right in our textbook – you design for the client, not yourself. But it's still different to actually experience that.

Satisficing value

Other learners perceived negotiation as finding a compromise between the learners' and clients' understanding of appropriately implementing the instructional design process. These learners initially considered that they would receive value from an enriched instructional design process only by experiencing every step of the process in a real world context. However, the client perceived that it was not necessary to include every step without regard to its value, as this would expend time and resources on unneeded activities. For all projects, the client had agreed a specific training need with the instructor prior to the course. Nevertheless, one team questioned its appropriateness and asked to conduct a further needs analysis, which the client initially resisted. The learners were eventually allowed to conduct a trainee survey, which did support their position, but the client overrode their conclusions and the learners completed the project according to the client's original wishes. These learners described the experience of performing and then abandoning the outcome of the needs analysis as a sufficient compromise to "feel good" about behaving with professional integrity. One learner felt "kind of lucky we got to experience some of what that was like," while at the same time learning that in practice clients may not value the complete process of instructional design, and ultimately have a right to demand what they want. This encapsulates the sense of satisficing value as a pragmatic compromise which provided sufficient value to both learner and client, expressed here in these quotations from a learner and a client regarding the needs analysis survey already alluded to:

> *Learner:* We ended up sending the survey, and even though we found things that backed what I thought would be right, [they] even had an explanation for the answers that we got. They already had their minds set on what they wanted... It's the difference between what they need and what they want. It's true to life. That would put any consultant in a bind... I felt quite good, because I fulfilled my role, you know. I felt a lot more comfortable knowing that, yes, I am confident that this is what they need now, and we can proceed.
>
> *Client:* When my group [of learners] first ran a questionnaire to the trainees it was learned that the answers were correct to their questions and that perhaps we needed a few more questions. But what we needed was not a seminar on mentoring skills but how to set up a mentoring program. We were experiencing our own growing pains with the mentoring program and we had already ironed out the problems internally. We had taken care of a lot of their concerns... It's the difference between what I need and what I want. It's true to life.

Salvage value

A few learners indicated that their experience of a real world instructional design process was impoverished compared with their expectations based on their interpretation of instructional design from the introductory course. In some cases learners salvaged some value from their impoverished experience, but in other cases did not. For example, one learner felt that the client's lack of state-of-the-art technology impeded their experience of real world instructional design by requiring them to produce a product with older software. Yet this learner salvaged some personal

value from the experience without regard to the client: "we had to use what corresponded to what they had, but the realization that that might be something you encounter in a lot of jobs is definitely an educational experience." Another learner was disappointed that "in our actual real-life project we ended up cutting some corners [whereas] one of the distinguishing features of instructional design is the extreme care with which everything is done, one of its appeals to me." While the need to "cut some corners" is a common experience in real world instructional design, this understanding was not gained by this learner, and no value was salvaged related to this understanding.

Who you are accountable to: Managing the demands of instructor and client

The basic structure of this learning activity was that the learners were accountable to both the instructor who would grade their performance, and the outside client for whom they performed services. The opportunity for the learners to experience instructional design as a consultant was the main goal of the learning activity. However, achievement of this goal depended on the learners' perceptions and management of their roles as learners accountable to the instructor and as consultants serving the client. These role perceptions were also influenced by the learners' perceptions of the clients' perceptions of their roles.

Co-constituted value

Learners perceived co-constituted value when they reported that their role transcended the clear categories of learner or consultant, but was rather a new role in which value to both learner and client emerged in their interactions. The following extended quotation describes the emergence of a negotiated role reported by several learners. Here the negotiations between learners and client concerned the purpose and scope of the training that the client had requested. The learners believed a much broader scope was necessary corresponding to their perception of instructional design principles, whereas the client requested a much narrower and theoretically questionable approach to the training design. A negotiated conclusion was reached which satisfied both client and the learner, but was one, which neither party believed would have been reached within a classroom setting or within the context of a paid consulting assignment:

> There was some confusion about our role. Was it to find out what [the client] needs and give them exactly what they need, or was our role a learner doing what we're told, to do a nice project and get a nice grade. In the beginning I wanted to get the good grade and was like, give them what they want and let's just do it. [My attitude changed] after that comment [the client] made about to [the instructor] real jokingly that if this were the real world we would tell you what we want and you would do it. And I thought that's baloney, if this were the real world and you didn't agree with it, ethically you're not going to go out there and do it. I didn't feel that was a real true statement. He thought it was... I had a real fear that we were going to end up doing a training program and present it to employees that totally didn't want to be there and didn't care about what we were supposedly giving them, that was the feedback that we got on employee surveys we sent out. If I was a consultant I don't know if I would

> go through with that, but it turned out not being that way and everything was okay. It was good and we were able to narrow it down so we were all fairly comfortable with the topic. So it helped us in the end, but the beginning it was what should we do, we weren't really sure. So it was a learning experience.

The following two learners attributed the emergence of their co-constituted role to the attitudes of the instructor and the client:

> Maybe I will get a surprise when I get my final course evaluation, but I felt like we were working for [the client]. And if [the client] was happy, then [the instructor] was happy. So there was no conflict at all.

> The simple fact that people are willing to argue and discuss things with you proves that they are treating you as a professional rather than a learner [rather than if] they just simply told us this is the way it is. They were careful enough to make sure we were comfortable with the results and with the decisions and with what we were doing. That gives them credit with, most likely, having the attitude that we were also professionals and doing the professional work.

Satisficing value

For some learners, factors were present that prevented transcending the two distinct roles of learner and consultant in order to allow a unique role to emerge. Instead, both roles were maintained separately, permitting satisficing value to both learner and client. These learners described compromises in which their roles were in-between that of a learner and a paid consultant:

> I think [the client] did a good job trying to make us feel like consultants, but just some things they were condescending toward us a little because we were learners. And I didn't care for that at all.

> I would say we worked as an outside contractor. It was a little more relaxed, I mean if they were paying big bucks I think they would have been more demanding, that is my sense. Because they seemed to be real happy with whatever, I mean, they sent back stuff with plenty of revisions and so forth, so it wasn't like anything we did was okay.

This in-between role led to the perception of participating in an activity that was less than fully real, in contrast to the perceptions of co-constituted value in which the reality that emerged from the activity was itself considered the real world performance. One dimension of this perception of satisficing value was that the learning activity was more a preparation for future real world performance than being real in itself, described in this way by these two learners:

> To actually go out and do it for a client was very enlightening. It gives you a much better idea if you'd really like to do this type of thing. It gave you more realistic expectations of what it'd perhaps be like to do this for real.

> I envisioned that we might end up doing some kind of advanced computer-based instruction, and that wasn't what we did, we did a manual. But we couldn't use cutting edge stuff because their equipment was not cutting edge. So we had to use what corresponded to what they had. So the realization that

> this might be something you encounter in a lot of jobs is definitely an educational experience.

Another dimension that led to the activity being perceived as less than real by learners were the compromises inherent in the learning activity and the relationship with the client. These learners perceived compromises in their relationship with the client compared with what a paid consultant would experience. This included the seniority of client personnel that the learners worked with; a perception that the client would not have hired a consulting firm to create the training if the learners had not been available; and if they had, would have treated them in a more professional manner. These compromises lent an element of unreality to the situation that led learners to perceive a separation between the value to themselves and the value experienced by the client, for example:

> As far as I know, they have very limited budget for training. And that's one of the reasons why they are, I wouldn't say they are using us, but they are on this project. But it's good that there are people out there who have that need. Because that gives us the opportunity. I only wish that there were more companies actually with a budget.

> I would put it somewhere about in the middle. We were supposed to have the training room, and then the day that we got there we had gotten bumped, so we were put in this room where two of the walls were completely windows facing this whole bay of workers at their desks, and there was no desk for us to put our things on. I thought that was just really unprofessional. I don't know that that related so much to this being just a learner project, but I doubt if they were paying good money for somebody to come in from the outside that they would have done something like that.

Salvage value

As indicated before, one learner perceived only a single role and considered the work personal, for the instructor and the grade rather than for the client. The learner believed the client had little interest in the instruction, as evidenced by the small number of trainees at the presentation:

> There was no conflict that we were doing it for [the client] versus a grade. What drove us was because we had to do it for a grade. If we were just doing it for [the client] I would not have put the effort into it, because I just never got the impression that they much cared.

Discussion

In this case study, a framework was identified of kinds of perceived value that are related to main features of the learning activity. There are three implications of this framework: first, an interpretation of kinds of perceived values in terms of the integration of learner and client goals; second, the relative worth of different kinds

of value, and the proposition that co-constituted value is the most desirable kind of value; and finally, recommendations regarding instructor actions that may influence learner perceptions of value.

Kinds of perceived value based on integration of learner and client goals

While all learners reported that the practice of instructional design adopted in this learning activity was quite different from that experienced in the introductory course, they perceived the value of these differences in different ways. This is consistent with the few reports in the literature in which different learner groups negotiate alternative processes and outcomes (Barab et al., 2000; Radinsky et al., 2001). However, the alternative approaches that learners can take in their interactions with a client have now been identified in this case in terms of the different degrees of integration of the learner's goals with the client's goals. At one end of the range are the dynamics of creating co-constituted value that were partially independent of the instructor's intentions. In some respects learner actions were consistent with the instructor's intentions—for example, learner experiences of negotiating with the client. In other respects—for example, learner perceptions of the value of completing a whole project as the essence of learning practical knowledge of instructional design—were not intended by the instructor. Taken as a whole, therefore, learners who perceived co-constituted value interacted with the client so as to create learning they considered to be of value.

In the case of satisficing value, the client did not want each phase of the project performed at the level of quality that the learners independently perceived as desirable or necessary for their learning. Such learner–client interactions represent a lesser degree of integration of the learner activities into the client arena than in the case of learners acting in a way that generated co-constituting value. Thus, co-constituted and satisficing value represent points on a continuum of integration of the learner's goals with the client's goals. Finally, salvage value can be placed at the end of the continuum at which the learner has fully disengaged from the client's goals.

The relative worth of different kinds of perceived value

The two kinds of perceived value that predominated in this case study—co-constituted value and satisficing value—are consistent with the findings of Barab et al. (2000), Radinsky et al. (2001), and Rahm et al. (2003), although these authors did not explicitly distinguish these kinds of value to the degree characterized here. The third kind of value identified in this case study—salvage value—has not been well articulated in the literature. Jacobson and Spiro (1994) found evidence that learners with low tolerance for ambiguity experience something akin to "tuning out," but this term does not fully capture the concept of salvage value. Perceptions of salvage value in this case study resulted from a lack of learner buy-in to the intentions of the learning activity, which in some instances led to salvaged learning, but in other instances reflected a failure to salvage any personal value from participation. In contrast, in Barab et al. (2000)'s study, some learners ignored one teacher–mentor who did not offer the learners the support they needed, and these learners developed alternative ways to engender value. Thus in Barab et al. (2000), the *client*, i.e., the teacher–mentor,

failed to buy in to the intentions of the learning activity, but the learners' high level of buy-in allowed them to salvage value in a different way from that intended. These illustrate two different ways in which salvage value can be experienced, and at this early stage of development this perception can only be interpreted as participation in a manner that is outside of, or contrary to, the intended design of the learning activity. However, while perception of salvage values implies an absence of learning as intended by the designer (e.g., learning to incorporate clients' needs and constraints in the design of instruction), it does not imply an absence of any learning (e.g., one learner chose a project perceived as providing the greatest personal learning regardless of the value to the client).

An important question suggested by this study is whether it is more desirable to support co-constituted than satisficing value, and satisficing than salvage value. The evidence from this case study suggests co-constituted value has only benefits for the learner. Yet, the outcomes of satisficing and salvage value can also provide valuable experiences for some learners who for various reasons were unable to, or chose not to, participate in a way that supported perception of co-constituted value as intended by the designer. However, this is not always the case, for example, if some learners experienced satisficing value as an impoverishment of the instructional design process when they lacked the opportunity to develop instruction to the level of rigor they would have preferred.

Influencing learners' perceptions of value

Perceptions of learning activity value cannot be predicted in advance (Petraglia, 1998a, 1998b) and thus it cannot be assumed that learners will perceive the value of an activity as intended by course designers. Nevertheless, this case study and previous empirical scholarship indicate that there are certain actions that designers and instructors can take to influence learners' perception of value. In terms of influencing learner buy-in, learners were provided with a range of instructional topics from which to choose in order to increase such buy-in. This approach was highly successful with all but one learner and is consistent with those of Nicaise et al. (2000) and Radinsky et al. (2001) who suggest a broad range of activities to provide opportunities for learners to choose personally meaningful activities. Similarly, Barab et al. (2000) found in their study that the structure of the learning activity for all groups of learners allowed one group to generate an unplanned, but personally meaningful, approach to completing course requirements in the context of a failure of the structure for that group. Additionally, instructors adopting this approach need to stress that one purpose of the course is to experience the ill-structure and ambiguity of the professional practice of instructional design. Finally, instructors can monitor perceptions of value through direct observation, written or verbal reflections by learners, and individual and group discussion. The kinds of value identified here might be useful in identifying and guiding these perceptions using rhetorical and other strategies (Petraglia, 1998b). The value categories identified in this case study should be used with care. First, no data on individual learner characteristics or team composition, or task characteristics, was collected that may have informed the effects of these factors on different perceptions of value. Second, potential changes of perception of value during the course were not investigated. Third, while most learners described perceptions of one kind of value regarding one feature of the

activity, and a different kind of value regarding another, no data was collected that may have shed light on why individual learners perceived different value in different aspects of the activity.

Conclusion

This case study has analyzed in-depth learners' perceptions of value of participating in a learning activity designed to provide experience of the professional practice of instructional design. The learning activity involved graduate instructional design learners in the development of instruction for corporate clients in the context of classroom instruction. Previous theoretical and empirical scholarship has examined both the importance of recognizing learner's perceptions of value in such learning activities, as well as the conditions that influence such perceptions. This case study extends this previous work with the development of a framework that places learners' perceptions of value on a continuum from co-constituted value to satisficing value to salvage value that represent decreasing degrees of integration of learner and client goals. In addition, this study has identified how these perceptions of value arise in terms of three main features of such learning activities: *what you do*, *how you do it*, and *who you are accountable to*. It is hoped that this development will encourage research on both the learning that results from participation in such activities, and on guidelines for instructors who wish to implement such learning activities.

Additional areas of research are suggested that are beyond the scope of the case study. First, validation of the general model of learners' perceptions of value is needed to determine its validity in situated activities in other domains, and its generalizability based on larger numbers of learners. Second, variations in satisfaction with the learning activity were expressed by learners, suggesting different levels of motivation and thus depth of learning. Research on learner satisfaction with different aspects of such activities could inform the relationship between learner motivation and the value perceived in different aspects of the activity. Third, the importance of the role and approach of the instructor was implicated in many responses. Further research is needed to determine the effects of instructor actions intended to influence learners' perceptions of value.

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